



## National Institute of Biomedical Imaging and Bioengineering (NIBIB) Awards KIYATEC \$225,000 to Develop 3D Platelet Bank

*Grant Funds 3D Microbioreactor Bone Marrow Mimetic for Platelet Production*

**Greenville, S.C. | September 30, 2015**– Kiyatec announced today that it has been awarded a \$225,000 Small Business Innovation Research (SBIR) Phase I Grant from the National Institute of Biomedical Imaging and Bioengineering (NIBIB), one of the 27 institutes and centers that comprise the National Institutes of Health (NIH). Over the course of the six month award, Kiyatec will develop 3D microbioreactors useful for the *in vitro* production of platelets and advance its technology around bone marrow models. Bone marrow has important implications for the company's focus in 3D cancer assays, especially with respect to immuno-oncology models combining cancer and the human immune system. In collaboration with Tufts University's biomaterial scaffold design and fabrication expertise, Kiyatec will develop a perfusion bioreactor system containing a live bone marrow mimetic capable of generating clinically relevant quantities of platelets from initial bone marrow precursor cells and then characterize their morphology and function.

The NIBIB grant will further Kiyatec's mission to create clinically-relevant 3D microenvironments useful for clinical diagnostics, translational research and clinical therapies. The end goal would be the eventual commercialization of the technology platform in order to provide the market with highly functional, donor-free platelets in addition to 3D cancer assays incorporating components of the bone marrow niche.

"This grant is further recognition of Kiyatec's industry-leading expertise in 3D modelling of the human condition and its ability to combine innovations in biology and engineering to develop clinically meaningful *ex vivo* 3D platforms", said Howland E. Crosswell, M.D., Kiyatec's CMO and project Principal Investigator. "Ultimately, we want to positively impact patients and if successful this approach would reduce the demand for platelet donation by generating renewable sources of donor-free human platelets, all *in vitro*". By recreating the bone marrow microenvironment through the use of novel 3D scaffolding and bioreactor technology, the project goal is to produce sufficient quantities of functional platelets to be used for multiple clinical applications, such as transfusion medicine, bone marrow toxicology or drug delivery programs. The Kiyatec team is led by Scientific Director Teresa DesRochers, Ph.D. and the Tufts team is led by 3D tissue engineering expert, David L. Kaplan, Ph.D.



The SBIR program also provides a federal funding supplement specifically to small Research/R&D businesses that have a potential for commercialization. Kiyatec received this supplemental grant funding to work closely with the National Institutes of Health commercialization team to begin planning on scale-up and commercial partners for the novel technology platform. The Phase I grant is being funded in whole or in part with federal funds from the National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health and Department of Health and Human Services under Grant Number 1R43EB021704-01.

For more information on Kiyatec visit <http://www.kiyatec.com/>.

#### **ABOUT KIYATEC, INC.**

Kiyatec prioritizes accurate ex vivo prediction of patients' response to drug treatment, with a focus on data correlation to human clinical outcomes. The company creates and utilizes live phenotypic 3D cell-based models for drug response profiling and donor-free clinically relevant cell production. These models are applied in order to generate information relevant to preclinical testing, clinical trials and clinical diagnostics applications. By accurately predicting patient drug response without ever exposing actual patients to drugs, Kiyatec will create informed drug selection that minimizes clinical trials' failures and maximizes patient outcomes in the clinic. For more information, please visit [www.kiyatec.com](http://www.kiyatec.com) or follow Kiyatec on Twitter (@KIYATEC).